

In the Claims

1. (Previously presented) A method for supporting of a plurality of chip rates in a code division multiple access (CDMA) system between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the method comprising:
allocating to a UE at least a first timeslot of the plurality of timeslots in the frame at a first chip rate of the plurality of chip rates based on a chip rate capability of the UE on a per timeslot basis.
2. (Previously presented) The method of claim 1 further comprising allocating, by the CDMA system, a timeslot for use by at least one of the plurality of chip rates.
3. (Previously presented) The method of claim 1 wherein the UE is capable of operating at a plurality of chip rates.
4. (Previously presented) The method of claim 1 wherein the plurality of chip rates are integer multiples of a lowest supported chip rate.
5. (Previously presented) The method of claim 1 further comprising autonomously detecting, by the UE, a chip rate of an allocated timeslot.
6. (Previously presented) The method of claim 1 wherein the frame comprises beacon data in at least one of the plurality of timeslots.
7. (Previously presented) The method of claim 6 wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.

8. (Previously presented) The method of claim 1 further comprising allocating at least a second timeslot of the plurality of timeslots in the frame at a second chip rate of the plurality of chip rates, wherein the frame comprises a first beacon data in one of the plurality of timeslots operating at the first chip rate and a second beacon data in the second timeslot of the plurality of timeslots operating at the second chip rate.
9. (Previously presented) The method of claim 8 wherein the first and the second chip rates of the plurality of chip rates are controlled independently of each other.
10. (Previously presented) The method of claim 1 wherein the first and the second chip rates of the plurality of chip rates are commonly controlled.
11. (Previously presented) The method of claim 1 wherein the method comprises transmitting a plurality of instantiations of the at least a first one of the plurality of timeslots in the frame operating at the first chip rate.
12. (Original) The method of claim 11 wherein the plurality of instantiations are separated in the frequency domain.
13. (Previously presented) The method of claim 11 wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth or the second chip rate system to the bandwidth of the first chip rate system.
14. (Previously presented) The method of claim 1 wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.
15. (Previously presented) The method of claim 1 wherein the method further comprises transmitting to the UE parameters of timeslots via broadcast signalling.

16. (Previously presented) The method of claim 15 wherein the system is a UMTS TDD system, and the step of transmitting to the UE parameters of timeslots comprises transmitting signals broadcast in system information blocks.

17. (Previously presented) The method of claim 1 wherein the method further comprises transmitting to the UE parameters of timeslots via point to point signalling.

18. (Original) The method of claim 17 wherein the point to point signalling defines the timeslot parameters for a single allocation.

19. (Original) The method of claim 17 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.

20. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RAC) messages.

21. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.

22. (Original) The method of claim 17 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.

23. (Previously presented) The method of claim 1 wherein the UE receiving the transmitted frame receives an indication of the chip rate applied in a timeslot.

24. (Previously presented) A code division multiple access (CDMA) system for supporting a plurality of chip rates between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the system comprising:

means for allocating to a UE at least a first timeslot of the plurality of timeslots in the frame at a first chip rate of the plurality of chip rates based on a chip rate capability of the UE on a per timeslot basis.

25. (Previously presented) The CDMA system of claim 24 wherein the system allocates a timeslot for use by at least one of the plurality of chip rates.

26. (Previously presented) The CDMA system of claim 24 wherein the UE is capable of operating at a plurality of chip rates.

27. (Previously presented) The CDMA system of claim 24 wherein the plurality of chip rates are integer multiples of a lowest supported chip rate.

28. (Previously presented) The CDMA system of claim 24 wherein the UE autonomously detects a chip rate of an allocated timeslot.

29. (Previously presented) The CDMA system of claim 24 wherein the frame comprises beacon data in at least one of the plurality of timeslots.

30. (Previously presented) The CDMA system of claim 29 wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.

31. (Previously presented) The CDMA system of claim 24 further comprising means for allocating to the UE at least a second timeslot of the plurality of timeslots in the frame at a second chip rate of the plurality of chip rates, wherein the frame comprises a first beacon data in

one of the plurality of timeslots operating at the first chip rate and a second beacon data in the second timeslot of the plurality of timeslots operating at the second chip rate.

32. (Previously presented) The CDMA system of claim 24 wherein the first and second chip rates of the plurality of chip rates are controlled independently of each other.

33. (Previously presented) The CDMA system of claim 24 wherein the first and second chip rates of the plurality of chip rates are commonly controlled.

34. (Previously presented) The CDMA system of claim 24 wherein the means for transmitting signals from a network to user equipment in the system comprises means for transmitting a plurality of instantiations of the at least a first timeslot of the plurality of timeslots in the frame operating at the first chip rate.

35. (Original) The CDMA system of claim 34 wherein the plurality of instantiations are separated in the frequency domain.

36. (Previously presented) The CDMA system of claim 34 wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth of the second chip rate system to the bandwidth of the first chip rate system.

37. (Previously presented) The CDMA system of claim 24 wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.

38. (Previously presented) The CDMA system of claim 24 wherein the system further comprises means for transmitting to the UE parameters of timeslots via broadcast signalling.

39. (Previously presented) The CDMA system of claim 38 wherein the system is a UMTS TDD system, and the means for transmitting to the UE parameters of timeslots comprises means for transmitting signals broadcast in system information blocks.

40. (Previously presented) The CDMA system of claim 24 wherein the system further comprises means for transmitting to the UE parameters of timeslots via point to point signalling.

41. (Original) The CDMA system of claim 40 wherein the point to point signalling defines the timeslot parameters for a single allocation.

42. (Original) The CDMA system of claim 40 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.

43. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RRC) messages.

44. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.

45. (Original) The CDMA system of claim 40 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.

46. (Previously presented) The CDMA system of claim 24 wherein the UE is adapted to receive an indication of the chip rate applied in a timeslot.

47. (Previously presented) A base station for use in a code division multiple access (CDMA) system supporting a plurality of chip rates between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the base station comprising:

means for allocating to a UE at least a first timeslot of the plurality of timeslots in the frame at a first chip rate of the plurality of chip rates based on a chip rate capability of the UE on a per timeslot basis.

48. (Previously presented) The base station of claim 47 wherein the base station allocates a timeslot for use by at least one of the plurality of chip rates.

50. (Previously presented) The base station of claim 47 wherein the plurality of chip rates are integer multiples a lowest supported chip rate.

51. (Previously presented) The base station of claim 47 wherein the UE autonomously detects a chip rate of an allocated timeslot.

52. (Previously presented) The base station of claim 47 wherein the frame comprises beacon data in at least one of the plurality of timeslots.

53. (Previously presented) The base station of claim 52 wherein the beacon data is in one of the plurality of timeslots operating at the lowest of the plurality of chip rates.

54. (Previously presented) The base station of claim 47 further comprising means for allocating to a UE at least a second timeslot of the plurality of timeslots in the frame at a second chip rate of the plurality of chip rates, wherein the frame comprises a first beacon data in one of the plurality of timeslots operating at the first chip rate and a second beacon data in the second timeslot of the plurality of timeslots operating at the second chip rate.

55. (Previously presented) The base station of claim 47 wherein the first and second chip rates of the plurality of chip rates are controlled independently of each other.

56. (Previously presented) The base station of claim 47 wherein networks of the first and second chip rates of the plurality of chip rates are commonly controlled.

57. (Previously presented) The base station of claim 47 wherein the means for transmitting signals from the base station to the UE in the system comprises means for transmitting a plurality of instantiations of the first timeslot of the plurality of timeslots in the frame operating at the first chip rate.

58. (Original) The base station of claim 57 wherein the plurality of instantiations are separated in the frequency domain.

59. (Previously presented) The base station of claim 57 wherein the number of the plurality of instantiations is proportional to the ratio of the bandwidth of the second chip rate system to the bandwidth of the first chip rate system.

60. (Previously presented) The base station of claim 47 wherein the first chip rate system operates at substantially the same carrier frequency as the second chip rate system.

61. (Previously presented) The base station of claim 47 wherein the base station further comprises means for transmitting to the UE parameters of timeslots via broadcast signalling.

62. (Previously presented) The base station of claim 61 wherein the system is a UMTS TDD system, and the means for transmitting to the UE parameters of timeslots comprises means for transmitting signals broadcast in system information blocks.

63. (Previously presented) The base station of claim 47 wherein the base station further comprises means for transmitting to the UE parameters of timeslots via point to point signalling.

64. (Original) The base station of claim 63 wherein the point to point signalling defines the timeslot parameters for a single allocation.

65. (Original) The base station of claim 63 wherein the point to point signalling defines the timeslot parameters for a multiplicity of allocations.

66. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in radio resource control (RRC) messages.

67. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in medium access control (MAC) messages.

68. (Original) The base station of claim 63 wherein the system comprises a UMTS TDD system, and the point to point signalling is carried in physical layer messages.

Claims 69-90 (Withdrawn)

91. (Previously presented) A computer-readable medium encoded with executable instructions for performing the method of claim 1.

92. (Previously presented) An integrated circuit comprising the means for allocating to a UE at least a first timeslot of the plurality of timeslots in the frame at a first chip rate of the plurality of chip rates based on a chip rate capability of the UE in the base station of claim 47.

93. (Withdrawn).

94. (Previously presented) A method for supporting of a plurality of chip rates in a code division multiple access (COMA) system between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the method comprising:

allocating to a UE at least a first timeslot of the plurality of timeslots in the frame at a first chip rate of the plurality of chip rates based on a chip rate capability of the UE on a per frame basis.

95. (Previously presented) A base station for use in a code division multiple access (COMA) system supporting a plurality of chip rates between a plurality of user equipment (UE) sharing a plurality of timeslots in a frame, the base station comprising:

means for allocating to a UE at least a first timeslot of the plurality of timeslots in the frame at a first chip rate of the plurality of chip rates based on a chip rate capability of the UE on a per frame basis.